

September 4, 2001 Project No. 97664V3

PROVIDING

- Geotechnical Engineering
- Construction Materials Engineering
- Environmental Engineering
- Drilling Services

Ms. Brenda Pohlmann Nevada Division of Environmental Protection 555 E. Washington, Suite 4300 Las Vegas, NV 89101-1049

RE: Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road Bridge.

Dear Ms. Pohlmann:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas Wash on August 27, 2001 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 420 micrograms per Liter (μ g/L). The NEL report is included with this letter, along with a both a Perchlorate Summary Tables for 2000 and 2001.

In addition to the sample GES collected and submitted to NEL, a split sample was collected per the request of Mr. Kevin Mayer, with the US Environmental Protection Agency (USEPA). This split sample was collected at the same time and in the same manner as the sample submitted to NEL, and was sent, under chain-of-custody protocol, to the USEPA Laboratory in Richmond, California.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included

Nevada Division of Environmental Protection Project No. 97664V3 September 4, 2001 Page 2

or intended in this report. We appreciate this opportunity to provide our services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.

Richard Cooke Staff Geologist

Rieland Cooke

Daniel C. Burns, C.E.M.* #1692 (Expires 10/07/2001)

Tando Bus

Project Manager

*"I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

Enc:

2000 & 2001 Perchlorate Summary Tables

NEL Analytical Report

Dist:

1 original mailed to addressee 1 faxed to addressee at 486-2863

cc: fax to Jeff Gibson, American Pacific Corporation

cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105

cc: to project file 97664V3

Las Vegas Wash at Northshore Road Bridge 2000 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/27/00	569
2/28/00	720
3/29/00	870
4/27/00	750
5/30/00	740
6/28/00	410
7/27/00	650
8/28/00	510
9/27/00	430
10/26/00	340
11/29/00	370
12/26/00	320

Las Vegas Wash at Northshore Road Bridge 2001 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/25/01	280
2/27/01	350
3/27/01	480
4/26/01	320
5/29/01	240
6/27/01	400
7/25/01	550
8/27/01	420

NEL LABORATORIES

Reno • Las Vegas Phoenix • Boise

Las Vegas Division 4208 Arcata Way, Suite A • Las Vegas, Nevada 89030 702-657-1010 • Fax: 702-657-1577

1-888-368-3282

CLIENT:

Geotechnical & Env. Serv.

7150 Placid

Las Vegas, NV 89119

ATTN:

Dan Burns

PROJECT NAME:

FPF

PROJECT NUMBER: 97664 V3

NEL ORDER ID: L0108261

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 8/27/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Vägenen Laboratory Manager

CERTIFICATIONS:

Reno Las Vegas S. California AZ0520 AZ0518 AZ0605

California US Army Corps

1707 2002 Certified

Certified

2264

Reno Idaho Montana

Certified Certified NV033

Certified Certified NV052

Las Vegas S. California

CA084

of Engineers

Arizona

L.A.C.S.D.

Nevada

10228

FAX NO. 702 657 1577

P. 03

NEL LABORATORIES

CLIENT:

PROJECT #:

Geotechnical & Env. Serv.

FPF PROJECT ID:

97664 V3

CLIENT ID:

North Shore Road Bridge

DATE SAMPLED: 8/27/01

NEL SAMPLE ID: L0108261-01

TEST:

Inorganic Non-Metals

MATRIX:

Aqueous

PARAMETER	RESULT	R.L.	<u>D. F.</u>	METHOD	UNITS A	NALYZED
Perchlorate	420	4 0.	10	EPA 314	μg/L	8/29/01

NEL LABORATORIES

CLIENT:

PROJECT #:

Geotechnical & Env. Serv.

PROJECT ID:

FPF 97664 V3 CLIENT ID:

Method Blank

DATE SAMPLED: NA

NEL SAMPLE ID: 010829CLO4-BLK

TEST:

Non-Metals

REPORTING

PARAMETER Perchlorate

RESULT ND

LIMIT

D.F.

METHOD EPA 314

UNITS $\mu g/L$

<u>ANALYZED</u> 8/29/01

D.F. - Dilution Factor

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

3

NEL LABORATORIES

NEL Work Order: (U/U 8 2610)

NEL LABORATORIES	CHAIN OF CUSTODY	CUSTODY	NEL Work Order:	2108 7610
Reno • Las Vegas • Boise Phoenix • So. California	Project Name: F	PF	Project Number: 97	86413
Las Vegas Division • 4208 Arcate Way, Ste. A • Las Vegas, NV 89030	Purchase Order Number:	91:	Sampled By: R	Golle
702-657-1010 · Fax: 702-657-1577 · 888-368-3282				
Company GES Attention: Dan Burns Address:		Analysis		
tus Vegas, NV 891				
Hindre Hustback: Fax Number: 341 - 7120 Billing Address: Expected Due Dyne:	30x #2)			
7/4		The State of the S		
Requested Turnaround: 5-day 2-day 1-day Other	rix (B serval	CAN / / /		
Time/Date N.E.L. Sampled Customer Sample Identification Identification	Mat Pres			Remarks
0950/8/27/01 North Shore Road Bridge Ol	1 ARCX			
Custody Seal intact? Y N (None) Temp. 17		Box #1 DW - Dinking Water WW - Waste Water Ot - Of Corganic Exercises	SD - Solid AQ - Aqueous A - All	A. HCI E. los Orly B. HNO, F. Other C. H.SO. G. Not Preserved
Rethaushed by (Print) (Stanature) Da	Date/Time	Received by (Print)	(Signature)	Date/Time
in conte Riskond Carlo 8/27/0	1235	Dama Cockett	Can R. Jan	8/11/01/1235
rockett I Dany Bucket	1300	J. Suprisian	CALL	0021/10-228
The liability of NEL Laboratories Inc. is limited strictly to the price of sample analysis for those samples received in good condition by NEL. NEL is not responsible for loss, damage, resumpling costs and/or qualified data related to samples not received in good condition, including adequate sample volume and number of conditions. Signature of this Coc constitutes a purchase order for NEL to perform work and constitutes and conditions. Signature also constitutes a purchase order for NEL to perform work and constitutes and conditions. Signature also constitutes a purchase order for NEL to perform work and constitutes and conditions. Signature also constitutes a purchase order for NEL to perform work and constitutes are measured in control or the condition.	wed in good condition by Ni es a purchase order for NE	L. NEL is not responsible for loss, damage. L. to perform work and constitutes acception.	je, resampling costs and/or qualified date. Items of all NEL Standard Terms and Co	stated to samples not received in good condition rollings. Signature also constitutes acceptance transfer and content and the
of NEL Standard List Prices for all services ordered here on, except those specified otherwise via an NEL taboratory after 16:30 will be considered received on the next working day. Commitment of laboratory to	 Cuotation for Testing Sen the requested turnaround 	rices in effect at the time of sample receip I time will be confirmed via Sample Confi	 NEL turnaround times are measured a rmalion transmitted to the fax number pro 	h fegular working days. Samples received at the Prizhed abowe.

LETTER OF TRANSMITTAL

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

7150 Placid Street Las Vegas, Nevada 89119 (702) 365-1001 (702) 341-7120 (FAX)

USEPA SFD 72		Date	9:	September 4, 2	2001
75 Hawthorne Street		PROJEC [*]	T:		
	5				
Mr. Kevin Mayer		GES PROJECT	#	<u>97664V3</u>	
E FORWARDING THE ITEM	S LISTED BEL	OW VIA:			
MESSENGER	PICK UP	x U.	S. MAIL	"N	EXT DAY"
DESCRIPTION					
Results of monthly s	urface water s	sampling of the	_as Vegas V	Vash at the Nortl	nshore
Road Bridge					

					·······
				<u>,</u>	

ITEMS ARE SENT FOR:	REVIEW	COMME		APPROVAL	USE
ITEMS ARE SENT FOR:	REVIEW SIGN & RE		NT OTHER:	APPROVAL	USE
- -				APPROVAL	USE
ITEMS ARE SENT FOR:				APPROVAL	USE
- -				APPROVAL	USE
KS: ATERIAL SENT BY:	SIGN & RE	s, C.E.M.	OTHER:		USE
KS: ATERIAL SENT BY:	SIGN & RE	TURN	OTHER:		USE
ATERIAL SENT BY: PLEASE SI	SIGN & RE	s, C.E.M. JRN ONE COPY	OF TRANS		USE
ATERIAL SENT BY: PLEASE SI	SIGN & RE	s, C.E.M. JRN ONE COPY	OF TRANS	MITTAL.	USE
	75 Hawthorne Street San Fransisco, CA 94109 Mr. Kevin Mayer FORWARDING THE ITEM MESSENGER DESCRIPTION Results of monthly s	75 Hawthorne Street San Fransisco, CA 94105 Mr. Kevin Mayer E FORWARDING THE ITEMS LISTED BEL MESSENGER PICK UP DESCRIPTION Results of monthly surface water s	75 Hawthorne Street PROJECT San Fransisco, CA 94105 Mr. Kevin Mayer GES PROJECT FORWARDING THE ITEMS LISTED BELOW VIA: MESSENGER PICK UP x U. DESCRIPTION Results of monthly surface water sampling of the least surface water sampling surface water sampling of the least surface water sampling surface wate	75 Hawthorne Street PROJECT: San Fransisco, CA 94105 Mr. Kevin Mayer GES PROJECT # FORWARDING THE ITEMS LISTED BELOW VIA: MESSENGER PICK UP x U.S. MAIL DESCRIPTION Results of monthly surface water sampling of the Las Vegas V	75 Hawthorne Street PROJECT: Northshore Road San Fransisco, CA 94105 Mr. Kevin Mayer GES PROJECT # 97664V3 E FORWARDING THE ITEMS LISTED BELOW VIA: MESSENGER PICK UP x U.S. MAIL "NI DESCRIPTION Results of monthly surface water sampling of the Las Vegas Wash at the North

If enclosures are not as noted, please notify us at once.